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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,178	06/26/2006	Gi-Seon Nam	4949-0012	7866

23429 7590 11/24/2008
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EXAMINER

MORRIS, JOHN J

ART UNIT	PAPER NUMBER
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4147

MAIL DATE	DELIVERY MODE
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11/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/564,178

Applicant(s)

NAM ET AL.

Examiner

JOHN J. MORRIS

Art Unit

4147

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/55/02)
Paper No(s)/Mail Date 3/16/2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 14 recites the limitation "the method for displaying a high resolution picture" in line 19. There is insufficient antecedent basis for this limitation in the claim. The examiner is assuming that the applicant is referring to the method for outputting a file format picture.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 6, 14, 27, and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Yu et al. (US Pat# 6684087 B1/ or "Yu" *hereinafter*).

For **claim 1**, Yu teaches a mobile device for displaying a high resolution picture through a low resolution display unit, including a wireless transmitting/receiving unit for transmitting and receiving picture data through a mobile communication network (Yu,

column 3, lines 9-12). Yu also teaches an input unit for receiving commands from the user, a display unit for outputting the picture (Yu, figure 2), and a memory for storing the picture data (Yu, figure 3b). Yu teaches a mobile communications terminal comprising a picture data processing unit for outputting a file format picture including a plurality of unit block picture data and indexes for access to each of the block picture data to the display unit, wherein the picture data processing unit extracts minimum unit block picture data composing a partial picture which will be outputted to the display unit from the picture file by scrolling by using the index information of the picture file format, and outputs the picture (Yu, Column 7, lines 24-25, figure 5 and 7). Yu does not specifically teach a processing unit in the mobile device for outputting the picture; however, the processing unit is inherent since one is necessary for the mobile device to display the image.

For **claim 14**, Yu teaches a wireless transmitting/receiving unit (Yu, figure 1, item 106). Yu also teaches an input unit for receiving commands from the user, a display unit for outputting the picture (Yu, figure 2), a display unit (Yu, figure 2, item 202), and a memory for storing the picture data (Yu, figure 3a). Yu teaches displaying a partial picture which is outputted to the display unit from the picture file by using index information (Yu, column 7, lines 1-56). Yu teaches outputting the initial picture (Yu, figure 5B). Yu also teaches extracting the corresponding unit block picture data by using index information of the picture (Yu, column 7, lines 1-56). Yu does not specifically teach outputting the position-moved picture in accordance with generation of scroll;

however, Yu does teach that the original image, regardless of the dimensions, can be displayed block by block and hierarchically, on the small screen of a mobile device (Yu, column 7, lines 52-56). Therefore, it would have been an obvious matter of design choice as to how the moved image was display, because "scrolling" the image by using the keypad is taught by Yu.

For **claim 27**, Yu teaches a format converting server (Yu, figure 1, item 114) connected to a packet data service node and a picture providing server (Yu, figure 1, item 104, 100, or 110, column 7, lines 1-23), a display for the picture data (Yu, figure 1, item 106), a mobile communication system (Yu, figure 1, item 102 and 108), comprising a base station controller, a packet data service node (Yu, column 3, lines 53-67), and a picture providing server (Yu, figure 1, item 114). Yu teaches a received file database for storing picture data (Yu, column 7, lines 1-23, and figure 3a). Since the server can store images it is obvious that the server is able to store converted pictures as well. Yu also teaches a receiving unit for receiving the picture data (Yu, column 7, lines 1-23), a picture dividing unit for dividing the picture with indexes and storing the picture (Yu, column 8, lines 18-32, and figure 3a-3b), and a transmitting unit for transmitting the file (Yu, figure 3a-3b).

For **claim 32**, Yu teaches a format converting server (Yu, figure 1, item 114) connected to a packet data service node and a picture providing server (Yu, figure 1, item 104, 100, or 110, column 7, lines 1-23), a display for the picture data (Yu, figure 1, item 106), a mobile communication system (Yu, figure 1, item 102 and 108), comprising a base station controller, a packet data service node (Yu, column 3, lines 53-67), and a picture providing server (Yu, figure 1, item 114). Yu also teaches a picture dividing unit for dividing the picture with indexes and storing the picture (Yu, column 8, lines 18-32, and figure 3a-3b). It would have been obvious that the generated file was in the picture file format since the file is displayed on a mobile terminal.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-5, 15, 16, 17, 18, 21, 28, 29, 31, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US Pat# 6684087 B1/ or “Yu” *hereinafter*) in view of Lim (US Pat# 7233807 B2).

For **claim 2**, Yu teaches a selecting unit for selecting the unit blocks to be outputted to the display and extracting the selected block by using the index information (Yu, column 7, lines 1-56). Yu does not teach a frame buffer; however, in the same field of endeavor, Lim teaches a frame buffer for buffering the picture that will be outputted to the display unit (Lim, column 13). It would have been obvious that the frame buffer could be either the decoding frame buffer or the screen frame buffer since the buffer itself does not change. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the addition of the buffer could reduce the amount of time waiting for an image to load.

For **claim 3**, Yu does not teach decompressing the image; however, in the same field of endeavor, Lim teaches the image processor decompressing the image (Lim, column 11, lines 12-34). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and decompressing the image can restore the image to a better quality.

For **claim 4**, Yu teaches picture information containing the size of display screen and unit blocks (Yu, Column 2, lines 10-25). Yu teaches reducing the size of the image to fit into the screen of the mobile device and then inherently dividing the image into a number of sub areas, therefore, picture information is being used that contains the size of the display screen and unit blocks. Yu does not teach a picture header including the size

of the whole picture; however, in the same field of endeavor, Lim teaches using JPEG images (Lim, column 12, lines 55-61). It is well known in the art that a JPEG image may include header information including the size of the whole picture. Lim also teaches using screen data and scaling the image based on specification of the display unit (Lim, column 11, lines 12-34). Lim teaches the image processor generating a thumbnail picture and displaying the information on the display unit (Lim, column 12, lines 55-61). It is obvious that the image processor extracted the supplementary information of the picture file format or else the processor would not have been able to generate nor display the thumbnail. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the use of JPEG images can take up less memory.

For **claim 5**, Yu does not teach picture thumbnails; however, in the same field of endeavor, Lim teaches the image processor generating a thumbnail picture and displaying the information on the display unit (Lim, column 12, lines 55-61). It is obvious that the image processor extracted the supplementary information of the picture file format or else the processor would not have been able to generate nor display the thumbnail. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and generating a thumbnail can help the user select the image without have to wait for full size images to load.

For **claim 15**, Yu teaches picture information containing the size of display screen and unit blocks (Yu, Column 2, lines 10-25). Yu teaches reducing the size of the image to fit into the screen of the mobile device and then inherently dividing the image into a number of sub areas; therefore, picture information is being extracted and used. Yu does not teach a picture header including the size of the whole picture; however, in the same field of endeavor, Lim teaches using JPEG images (Lim, column 12, lines 55-61). It is well known in the art that a JPEG image may include header information including the size of the whole picture. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the use of JPEG images can take up less memory.

For **claim 16**, Yu does not teach picture thumbnails; however, in the same field of endeavor, Lim teaches the image processor generating a thumbnail picture and displaying the information on the display unit (Lim, column 12, lines 55-61). It is obvious that the image processor extracted the supplementary information of the picture file format or else the processor would not have been able to generate nor display the thumbnail. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and generating a thumbnail can help the user select the image without have to wait for full size images to load.

For **claim 17**, Yu teaches a selecting unit for selecting the unit blocks to be outputted to the display and extracting the selected block by using the index information (Yu, column 7, lines 1-56). Yu does not teach a frame buffer; however, in the same field of endeavor, Lim teaches a frame buffer for buffering the picture that will be outputted to the display unit (Lim, column 13). It would have been obvious that the frame buffer could be either the decoding frame buffer or the screen frame buffer since the buffer itself does not change. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the addition of Lim could help reduce the size of the picture file.

For **claim 18**, Yu does not teach decompressing the image; however, in the same field of endeavor, Lim teaches the image processor decompressing the image (Lim, column 11, lines 12-34). It would have been obvious to perform the decompressing after extracting the data because the processor would need the data so it can decompress it and before buffering the picture data because buffering can be used to reduce any delays when displaying the image, therefore decompressing after buffering would negate some of the benefits of buffering.

For **claim 28**, Yu teaches picture information containing the size of display screen and unit blocks (Yu, Column 2, lines 10-25). Yu teaches reducing the size of the image to fit into the screen of the mobile device and then inherently dividing the image into a number of sub areas; therefore, picture information is being extracted and used. Yu does

not teach a picture header including the size of the whole picture; however, in the same field of endeavor, Lim teaches using JPEG images (Lim, column 12, lines 55-61). It is well known in the art that a JPEG image may include header information including the size of the whole picture. It would have been an obvious matter of design choice to have the storing unit produce the header since such a modification only requires a mere change of location of the software. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the addition of Lim could help reduce the size of the picture file.

For **claim 29**, Yu does not teach picture thumbnails; however, in the same field of endeavor, Lim teaches the image processor generating a thumbnail picture and displaying the information on the display unit (Lim, column 12, lines 55-61). It is obvious that the image processor extracted the supplementary information of the picture file format or else the processor would not have been able to generate nor display the thumbnail. It would have been an obvious matter of design choice to have the storing unit produce the header since such a modification only requires a mere change of location of the software. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the addition of Lim could help reduce the size of the picture file.

For **claim 31**, Yu does not teach decompressing the image; however, in the same field of endeavor, Lim teaches the image processor decompressing the image (Lim, column 11, lines 12-34). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the addition of Lim could help reduce the size of the picture file.

For **claim 34**, Yu teaches picture information containing the size of display screen and unit blocks (Yu, Column 2, lines 10-25). Yu teaches reducing the size of the image to fit into the screen of the mobile device and then inherently dividing the image into a number of sub areas, therefore, picture information is being. Yu does not teach a picture header including the size of the whole picture; however, in the same field of endeavor, Lim teaches using JPEG images (Lim, column 12, lines 55-61). It is well known in the art that a JPEG image may include header information including the size of the whole picture. It would have been an obvious matter of design choice to generate the picture header after dividing the picture data into a plurality of blocks because the size of the picture and blocks would need to be known before and after the picture is divided. It would have been obvious to do this before generating the converted file because the picture header is needed to generate the complete converted file. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the addition of Lim could help reduce the size of the picture file.

For **claim 35**, Yu does not teach picture thumbnails; however, in the same field of endeavor, Lim teaches the image processor generating a thumbnail picture and displaying the information on the display unit (Lim, column 12, lines 55-61). It is obvious that the image processor extracted the supplementary information of the picture file format or else the processor would not have been able to generate nor display the thumbnail. It would have been an obvious matter of design choice to generate the thumbnail after dividing the picture data into a plurality of blocks because the thumbnail could be generated before or after the picture is divided. It would have been obvious to do this before generating the converted file because the supplementary information is needed to generate the complete converted file. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Lim because both deal with display images on mobile devices and the addition of Lim could help reduce the size of the picture file.

7. Claims 6-10, 22-24, 30, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US Pat# 6684087 B1/ or "*Yu*" *hereinafter*) in view of Sano et al. (US Pub# 20020196970 A1/ or "*Sano*" *hereinafter*).

For **claim 6**, Yu teaches receiving the image wirelessly from a server (Yu, Figure 1). Yu also teaches display the received image on the mobile device in a plurality of unit blocks with indexes to each block (Yu, column 3, lines 9-20). Yu teaches memory for storing the picture data (Yu, figure 3b). Yu does not teach a format converting unit within the mobile device; however, in the same field of endeavor, Sano teaches a format

converting unit (which may or may not be housed within a mobile device) that divides the image into blocks (Sano, page 3, paragraph [0032]). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Sano because both deal with images and the addition of the format converting unit could reduce the file size of the image allowing less memory to be used to store the image.

For **claim 7**, Yu teaches memory for storing the picture data (Yu, figure 3a). Yu also teaches displaying the received image on the mobile device in a plurality of unit blocks with indexes to each block (Yu, column 3, lines 9-20). Yu does not teach a format converting unit within the mobile device; however, in the same field of endeavor, Sano teaches a format converting unit (which may be housed within a mobile device) that divides the image into blocks (Sano, page 3, paragraph [0032]).

For **claim 8**, Sano teaches compressing each block individually (Sano, page 3, paragraph [0032]). Sano teaches that this technique is beneficially in memory reduction and therefore it is obvious that the compressed blocks are stored in memory.

For **claim 9**, Sano teaches decompressing each block individually (Sano, page 3, paragraph [0032]).

For **claim 10**, Yu teaches picture information containing the size of display screen and unit blocks (Yu, Column 2, lines 10-25). Yu teaches reducing the size of the image to fit into the screen of the mobile device and then inherently dividing the image into a number of sub areas, therefore, picture information is being used that contains the size of the display screen and unit blocks. Yu does not teach a picture header including the size of the whole picture; however, in the same field of endeavor, Sano teaches using JPEG images (Sano, page 2, paragraph [0027]). It is well known in the art that a JPEG image may include header information including the size of the whole picture. Sano also teaches that each block has its on header (Sano, page 2, paragraph [0024]). It would have been an obvious matter of design choice to have the storing unit produce the header since such a modification only requires a mere change of location of the software.

For **claim 22**, Yu teaches receiving the image wirelessly from a server (Yu, Figure 1). Yu also teaches display the received image on the mobile device in a plurality of unit blocks with indexes to each block (Yu, column 3, lines 9-20). Yu teaches memory for storing the picture data (Yu, figure 3b). Yu does not teach a format converting unit within the mobile device; however, in the same field of endeavor, Sano teaches a format converting unit (which may be housed within a mobile device) that divides the image into blocks (Sano, page 3, paragraph [0032]). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Sano because both deal with images and the addition of Sano could help reduce the file size of the image allowing less memory to be used to store the image.

For **claim 23**, Yu teaches receiving the image wirelessly from a server (Yu, Figure 1). Yu also teaches display the received image on the mobile device in a plurality of unit blocks with indexes to each block (Yu, column 3, lines 9-20). Yu teaches memory for storing the picture data (Yu, figure 3b). Yu teaches this new picture file displayed (Yu, figure 5b). Yu does not teach a format converting unit within the mobile device; however, in the same field of endeavor, Sano teaches a format converting unit (which may be housed within a mobile device) that divides the image into blocks (Sano, page 3, paragraph [0032]).

For **claim 24**, Sano teaches compressing each block individually (Sano, page 3, paragraph [0032]). It is obvious that this step is performed after the picture data is divided into blocks because this is necessary to compress each block individually.

For **claim 30**, Sano teaches compressing each block individually (Sano, page 3, paragraph [0032]). Sano teaches that this technique is beneficially in memory reduction and therefore it is obvious that the compressed blocks are stored in memory. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Sano because both deal with images and the addition of Sano could help reduce the file size of the image allowing less memory to be used to store the image.

For **claim 33**, Sano teaches compressing each block individually (Sano, page 3, paragraph [0032]). It would have been obvious to do this after dividing the picture data since it is necessary to be divided to compress each block individually. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu with Sano because both deal with images and the addition of Sano could help reduce the file size of the image allowing less memory to be used to store the image.

8. Claims 11-13, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US Pat# 6684087 B1/ or "*Yu*" *hereinafter*) in view of Sano et al. (US Pub# 20020196970 A1/ or "*Sano*" *hereinafter*) and Lim (US Pat# 7233807 B2).

For **claim 11**, Yu and Sano do not teach picture thumbnails; however, in the same field of endeavor, Lim teaches the image processor generating a thumbnail picture and displaying the information on the display unit (Lim, column 12, lines 55-61). It is obvious that the image processor extracted the supplementary information of the picture file format. It would have been an obvious matter of design choice to have the storing unit produce the supplementary information used for the thumbnail since such a modification only requires a mere change of location of the software. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu and Sano with Lim because all deal with images and generating a thumbnail image could assist the user in selecting the correct image while using less bandwidth and memory for the larger size images.

For **claim 12**, Yu and Sano do not teach an external input port; however, in the same field of endeavor, Lim teaches an external input port (Lim, column 12, lines 25-29). Lim teaches using an external camera; therefore there must be an external input port. It would have been obvious to convert, index, and store the image from the external camera because the mobile terminal is still receiving an image, only from a different device. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu and Sano with Lim because all deal with images and the addition of Lim could assist the user in selecting the correct image while using less bandwidth and memory for the larger size images.

Claim 13 is rejected upon the same grounds as claim 12.

For **claim 25**, Yu teaches picture information containing the size of display screen and unit blocks (Yu, Column 2, lines 10-25). Yu teaches reducing the size of the image to fit into the screen of the mobile device and then inherently dividing the image into a number of sub areas, therefore, picture information is being. Yu does not teach a picture header including the size of the whole picture; however, in the same field of endeavor, Lim teaches using JPEG images (Lim, column 12, lines 55-61). It is well known in the art that a JPEG image may include header information including the size of the whole picture. It would have been an obvious matter of design choice to generate the picture header after dividing the picture data into a plurality of blocks because the size of the picture and blocks would need to be known before and after the picture is divided. It

would have been obvious to do this before generating the converted file because the picture header is needed to generate the complete converted file. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu and Sano with Lim because all deal with images and the addition of Lim could assist the user in selecting the correct image while using less bandwidth and memory for the larger size images.

For **claim 26**, Yu does not teach picture thumbnails; however, in the same field of endeavor, Lim teaches the image processor generating a thumbnail picture and displaying the information on the display unit (Lim, column 12, lines 55-61). It is obvious that the image processor extracted the supplementary information of the picture file format or else the processor would not have been able to generate nor display the thumbnail. It would have been an obvious matter of design choice to generate the thumbnail after dividing the picture data into a plurality of blocks because the thumbnail could be generated before or after the picture is divided. It would have been obvious to do this before generating the converted file because the supplementary information is needed to generate the complete converted file. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yu and Sano with Lim because all deal with images and the addition of Lim could assist the user in selecting the correct image while using less bandwidth and memory for the larger size images.

9. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US Pat# 6684087 B1/ or “Yu” *hereinafter*) in view of Minami (US Pub# 20030117407 A1).

For **claim 19**, Yu does not teach calculating the movement position in accordance with generation of scroll; however, in the same field of endeavor, Minami teaches calculating movement position in accordance with generation of scroll action and re-selecting image blocks for displaying and deciding whether picture data exists in the buffer and displaying the picture (Minami, page 4, paragraph [0048] – paragraph [0050]). It would have been obvious to one of ordinary skill in the art to modify Yu with Minami because both deal with image displays and the addition of calculating the movement position would improve the usability by decreasing the latency to view parts of the image.

For **claim 20**, Yu does not teach calculating the movement position of scrolling; however, in the same field of endeavor, Minami teaches extracting block picture data using index information when the predicted partial image is not in the buffer and storing the image blocks (Minami, page 4, paragraph [0050]).

10. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US Pat# 6684087 B1/ or “Yu” *hereinafter*) in view of Minami (US Pub# 20030117407 A1) and Lim (US Pat# 7233807 B2).

For **claim 21**, Yu does not teach decompressing the image; however, in the same field of endeavor, Lim teaches the image processor decompressing the image (Lim, column 11, lines 12-34). It would have been obvious to perform the decompressing after extracting the data because the processor would need the data so it can decompress it and before correcting the decoding frame buffer because buffering can be used to reduce any delays when displaying the image, therefore decompressing after correcting the decoding the frame buffer would negate some of the benefits of buffering. It would have been obvious to one of ordinary skill in the art at the invention was made to modify Yu and Minami with Lim because all deal with the same subject matter and decompressing the image can restore the image to a better quality.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Noguchi et al. (US Pat# 6046734) discloses an image processor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN J. MORRIS whose telephone number is (571)270-7171. The examiner can normally be reached on Monday - Friday 7am - 3pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kieu-Oanh Bui can be reached on (571)272-7291. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KIEU-OANH BUI/
Supervisory Patent Examiner, Art Unit 4147

JOHN J MORRIS
Examiner
Art Unit 4147